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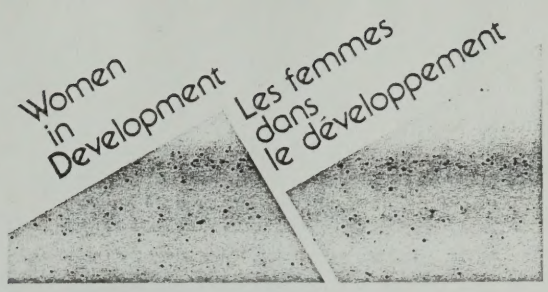

WOMEN AND ENERGY

OCTOBER 1985

Canadian International Development Agency
Agence canadienne de développement international

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The Present Situation

Faced with the transition to an era of higher prices in the 1980s, many developing countries are engaged in a major effort to expand alternative sources of energy. Energy conservation, energy management and planning have become crucial components of development strategies. To date, most international efforts have focused on the modern sector and on commercial energy use. Yet behind the "oil crisis" lies another energy crisis that touches many rural people, and especially rural women. The FAO estimates that half a billion people already live in situations of acute wood scarcity and energy deficit. This number is expected to double by the year 2000 unless drastic measures are taken (1).

Rural energy supply is closely tied to agricultural and forest production. It is also linked to the overall crisis in agricultural productivity and environmental degradation characteristic of many developing countries at the present time.

In most rural societies, women are the main consumers of household energy and also mainly responsible for the collection of wood, or the supply of other fuel materials, such as dung, charcoal and crop residues. Women in some parts of rural India, for example, spend close to 40 hours per week on fuel collection (2). Because of deforestation and desertification, families, and particularly rural women and children, must spend more time finding and collecting fuelwood. This time could be spent more productively in educational or family caretaking activities, in food production, or in income producing enterprises.

Although women have often borne the brunt of dwindling energy resources, they have had few, if any, opportunities to influence policy or participate in the search for remedies to energy problems. In an Afghan refugee camp in Pakistan, for example, male experts had designed "more efficient" mud stoves based on improving the primitive open mud models they had observed outside the compounds. Since the men could not actually enter the homes, they had not realized that inside, the women themselves had already built enclosed mud stoves, complete with metal chimneys. Not only were the new stoves inappropriate, but they repeated the same mechanical problems the women were already encountering with their own models (3).

Most capital-intensive, large-scale energy generation projects have not been designed to meet the needs of the average local household. And development projects have sometimes had negative side effects for rural people. On the Petit Cote of Senegal, for example, women had traditionally relied heavily on forests for household needs, animal pasturage and food gathering. Their lifestyle was drastically changed when an internationally financed project put up fences, cut down the native trees and planted new exotic species for export to Dakar. Although the project stimulated the urban economy, it increased the workload and fuel shortage for the local population(4).

Past Achievements

Proper management and protection of existing forests has been the basis of the success of a number of development projects and programmes in addressing both local fuel needs and women's role in fuel supplies. Other projects have saved fuelwood and reversed serious deforestation by introducing more efficient cookstoves. The introduction of appropriate technology and proper consultation with users can also streamline or reduce energy needs.

In one Indian village, for example, a local women's group was able to purchase carts and donkeys to carry fuel from long distances, thus creating time for other activities. In Thailand, traditional stoves were redesigned by women's groups and consultants to be less time consuming and smoke producing. The same groups then successfully marketed the improved stoves. And in Peru, women's groups have proposed solar heating for brewing chica beer and are evaluating the new technology with the government engineers on a parity basis (5).

Replacing wood with biogas for fuel has been successful in some instances. Biogas is produced when organic matter decomposes in an airfree warm environment. Biogas plants have been promoted as an appropriate rural technology throughout the Third World with various degrees of success. Family-size digesters have been cost-effective in parts of China and Korea.

Barriers to Meeting Women's Energy Needs

Women and their families are the prime managers of household fuel. However, they have not been the target beneficiaries of most energy projects, nor has the impact of their energy needs been measured in the broad range of development activities. The roots of the rural fuel crisis can be traced to the problem of underdevelopment itself. Growing demands by urban industry, overuse of agricultural and forest resources, and decreased access to land are part of the vicious circle that causes impoverishment of the rural population.

Inadequate fuel supplies are also linked to nutrition and health problems. Commercially available fuels, such as kerosene, are often too expensive, dangerous or inappropriate for traditional stoves. The rural and urban poor spend as much as 80 per cent of their income on food. Where fuel becomes commercialized or fuel prices rise, families often turn to foods that require shorter cooking hours, but might be less nutritious. In the central highlands of Mexico, for example, traditional staple beans which require large quantities of fuel to cook are being replaced by less nutritious foods (5).

Women and children suffer respiratory and eye diseases because they spend long hours in smoke polluted areas caused by burning wood or dung, and from inhaling large quantities of carbon monoxides. Fuel is necessary for the provision of basic sanitation, such as boiling water or washing parasite-infested vegetables. Many diseases could be avoided if there were adequate heat and safe water supplies.

Sometimes well-intended development planners introduce new cooking equipment manufactured in a donor country or in urban centres, but often this new technology is too expensive for the people it would be most useful for. The design can be too radically different from traditional models, and, for example, require cooking outside, at noon, in the burning sun. Such radical changes are met with resistance.

Future Action

* Rural households, and particularly rural women as the principle users and suppliers of household energy, must be involved fully in the planning, development and implementation of new energy technologies and strategies.

* Priority should be given to measures designed to decrease women's workload if they have to allocate time to participate adequately in energy and other community development projects.

* Improved stoves must save cooking time as well as fuel and should not differ too radically from the traditional design.

* Fuel and health projects must be more integrated.

* Women's traditional knowledge of stove design, social and agroforestry methods should be tapped. It could be the basis for extension courses in nutrition, agricultural and forestry management, and energy planning and technology courses.

* The effect of capital-intensive, large-scale energy projects on the local population and the environment must be thoroughly researched and documented before a decision is made to implement such projects.

Footnotes

1. "The Rural Energy Crisis, Basic Needs and Women's Work: What Can Donors Do?" Elizabeth Cecelski, DAC/OECD Paper, Jan. 1985, p. 1.

2. World Employment Research Programme Working Paper, "The Rural Energy Crisis, Women's Work and Family Welfare: Perspectives and Approaches to Action," E. Cecelski, June 1982, p. 92.

3. "The Rural Energy Crisis, Basic Needs...." op. cit., p. 1.

4. Op. cit., p. 11.

5. Women, Energy and Development, Odile Ditsch, United Nations, Division for Economic and Social Information, No. 121, July 1981.